

Date: Thursday, 3/2/2006 3:07:47 PM  
User: Kim Johnston

# Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: HINGE BRACKET
Job Number	: 26033		
Estimate Number	: 10345		
P.O. Number	: N/A	Part Number	: D28571
This Issue	: 3/2/2006	S.O. No.	: N/A
Prsht Rev.	: NC	Drawing Number	: D2857 REV A1
First issue	: N/A	Project Number	: N/A
Previous Run	: 24625	Drawing Revision	: A1
		Material	: N/A
Written By	: <u>SEE COMMENT BELOW</u>	Due Date	: 3/26/2006
Checked & Approved By	: <u>SA 06.03.02</u>	Qty:	24
Comment	: Est C 00.06.22 Removed P/O for powder coat EC	Um:	Each

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M6061T6B2000X01250	6061-T6 Bar 2.0" x 1.25"
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Comment: Qty.: 0.4594 f(s)/Unit Total: 11.0250 f(s)  
Material: 2.00" X 1.25"  
6061-T6 (QQ-A-225/8 or QQ-A-250/11 or QQ-A-200/8)  
(M6061T6B200001250)  
Batch M100451

SA 06.03.27

2.0	BAND SAW	BAND SAW
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Comment: BAND SAW  
Cut blanks 5.2"

SA 06.03.27

24

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1  
Machine per folio D2857-1

JL/SA 06.03.27

24

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

JL/SA 06.03.27

24

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: ☒ Date: 06/04/20  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06-03-28	3	4 part dimension .147 ± .010 is .135 .002 under tolerance, is part acceptable?	PH 06-03-28	Part acceptable per attached D. Shepherd email	J.L. 06-03-28	PH 06-03-28	PH 06-03-28	PH 06-03-28

NOTE: Date & initial all entries

Date: Thursday, 3/2/2006 3:07:47 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HINGE BRACKET

Job Number: 26033

Part Number: D28571

Job Number:



Seq. #:	Machine Or Operation:	Description :
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5.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Tumble

2-Deburr any rough edges after tumbling

JL 06.03.28 (24)

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.3

ML DC 06/03/28

(24)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

ML 06.03.28

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Gloss White (Ref. 4.3.5.1) per Dart QSI 005 4.3

Q.M 06-03-28

(24)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

ML 06.03.28

(24)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: ST391

AP 06/04/19 213

11.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

4/2 06/04/20

Job Completion




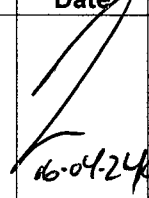
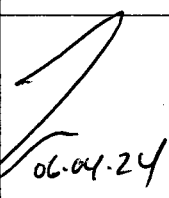

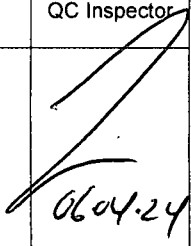
U 06.04.20

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
		1 part missing of the 24. Steve had 23 parts.		Count as 23. F.P. to absolutely count Qty of finished products.	 16-04-24	 16-04-24		 16-04-24

NOTE: Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	26033
<b>Description:</b> Hinge Bracket		<b>Part Number:</b>	D2857-1
<b>Inspection Dwg:</b> D2857 <b>Rev:</b> A1		<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article      ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.300	+/-0.010	4.301	✓			
0.340	+/-0.010	.341	✓			
1.110	+/-0.005	1.112	✓			
1.790	+/-0.010	1.791	✓			
1.320	+/-0.005	1.321	✓			
2.000	+/-0.010	2.001	✓			
Ø.171	+0.005/-0.000	Ø.171	✓			
0.147	+/-0.010	.137	✓			see attached e-mail
0.376	+/-0.010	.376	✓			
0.126	+/-0.010	.134	✓			
0.063	+/-0.010	.067	✓			
Ø0.166	+0.005/-0.000	.168	✓			
0.911	+/-0.010	.914	✓			
0.600	+/-0.010	.602	✓			
0.125	+/-0.010	.127	✓			
0.150	+/-0.010	.150	✓			

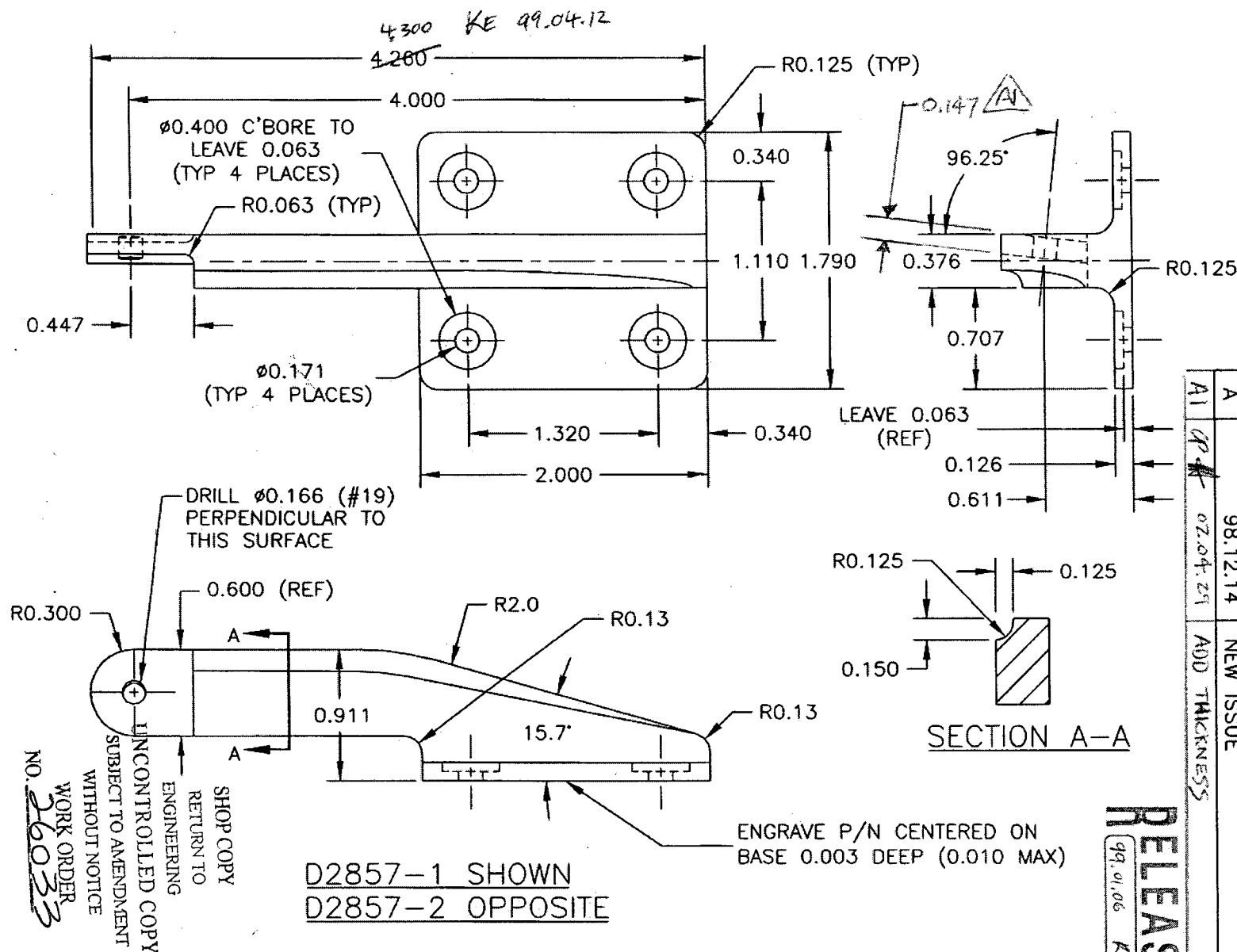
<b>Measured by:</b> J-L/SA	<b>Audited by:</b> EP	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 0603.27	<b>Date:</b> 06/03/28	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	04.06.15	New Issue	KJ/JLM	

**DART**

DESIGN	DRAWN BY	DART AEROSPACE LTD
KE	SP	HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
KE	SP	D2857
DATE	TITLE	REV. A
98.12.14	HINGE BRACKET	SHEET 1 OF 1
A	NEW ISSUE	SCALE
AI	ADD THICKNESS	1:1

RELEASED  
99.01.06 KE



MATERIAL: 6061-T6 ALUMINUM (QQ-A-250/11) OR (QQ-A-200/8) OR (QQ-A-225/8)  
FINISH: POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

## Peter Hum

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**From:** David Shepherd [davids@dartaero.com]  
**Sent:** Tuesday, March 28, 2006 4:41 PM  
**To:** Peter Hum  
**Subject:** Re: d2857 deviation

Acceptable deviation for this one part. Only 0.002" out of tolerance.  
Please have them adjust the manufacturing process so that the future parts  
are within tolerance.

David

----- Original Message -----

**From:** "Peter Hum" <phum@dartaero.com>  
**To:** "David Shepherd (E-mail)" <davids@dartaero.com>  
**Sent:** Tuesday, March 28, 2006 2:13 PM  
**Subject:** d2857 deviation

> David,  
>  
> I sent you fax showing that the thickness of the D2587-1 is out of  
tolerance  
>  
> The actual D2857-1 hinge bracket thickness 0.135. The nominal dimension  
> 0.147. Therefore, the part is under tolerance by 0.002".  
>  
> Is this deviation acceptable?  
>  
> Peter Hum  
> Mechanical Designer  
>  
> DART Aerospace Ltd.  
> Email...phum@dartaero.com  
> Phone...613-632-3336  
> Fax.....613-632-4443  
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